

Games and Ignorance

Harsanyi interpretation of Zeuthen-Nash approach stresses assumption that opponent is like oneself, that his expectations are related to payoffs in the same way. But, if it is meaningful for a player to be "conservative" in his decision-making under uncertainty, is it conservative to assume that the opponent is also conservative? On the contrary, this can be distinctly wishful; assuming that opponent is a Bayesian, or applies Principle of Insufficient Reason, might also tend to be wishful. Conservative behavior must reflect possibility that opponent is wishful; or more generally, that opponent's mode of decision-making under uncertainty (or, his definite expectations) is one which is inimical to one's own welfare; what such a mode might be will depend on payoffs. Thus, assumption of strict symmetry is not necessarily either reasonable or likely, let alone "conservative."

Given uncertainty as to opponent's move: 1) assigning equal prob to all opponent's moves, regardless of opponent's payoffs, amounts to assuming that opponent's alleged payoffs convey no information as to his choice (opponent's "true" payoffs or mode of decision are totally uncertain); (2) assigning equal likelihood to all opponent's possible expectations, regardless of one's own payoffs, would amount to assuming that opponent's expectations are independent of one's own payoffs (either these might be assumed unknown to opponent or "disbelieved" by him or ignored by him; he might be believed to have "traditional" or doctrinaire expectations); if opponent's payoffs are believed known, this determines expectations of opponent's behavior which depend on his critical risk. (3) Opponent may be assumed to do one of above assumptions w.r.t. oneself. (4) One may use decision rule in which weights assigned to opponent's moves reflect his payoffs, or one's own, or both; and opponent may or may not be assumed to do likewise.